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**SYSTEM, METHOD AND APPARATUS FOR OPTIMIZING POWER
DELIVERY AND SIGNAL ROUTING IN PRINTED
CIRCUIT BOARD DESIGN**

ABSTRACT OF THE DISCLOSURE

A system, method and apparatus for providing a printed circuit board having optimized power delivery 10 planes and signal routing regions are disclosed. In one aspect, the present disclosure teaches a printed circuit board having two or more cores coupled together using a prepreg sheet having selected regions of increased permittivity. In combining the cores with the prepreg sheet, the regions of increased permittivity are 15 preferably aligned with power delivery planes defined between respective cores. By increasing the permittivity within the power delivery planes, the greater the reduction in area of the cores needed for power delivery 20 and the greater the area retained on the cores for providing signal routing. As a result, a printed circuit board incorporating teachings of the present disclosure may support more advanced and complex information handling system implementations.

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